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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/769,790	02/03/2004	Arie Luite Visscher	3560-0136P	9240

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BIRCH STEWART KOLASCH & BIRCH
PO BOX 747
FALLS CHURCH, VA 22040-0747

EXAMINER	
COLQUITT, AARON BRUCE	
ART UNIT	**PAPER NUMBER**
3709	

NOTIFICATION DATE	DELIVERY MODE
05/08/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary	Application No.	Applicant(s)	
	10/769,790	VISSCHER ET AL.	
	Examiner	Art Unit	
	Aaron B. Colquitt	3709	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *02/03/2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-22* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *03 February 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *02/03/2004*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Priority

1. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Europe on 02/05/2004. It is noted, however, that applicant has not filed a certified copy of the 03075341.2 application as required by 35 U.S.C. 119(b).

Specification

2. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claim(s) 1-11, 13, 16, 22 are rejected under 35 U.S.C. 102(b) as being anticipated by US 6048300 to Thornton et al. (Thornton '300').

Thornton teaches:

In Reference To Claim 1

Device for sensing the presence of the distal end of a source wire in a reference position within a guidance channel of an afterloading apparatus, said afterloading apparatus being used for positioning an energy emitting source fixed to said distal end of said source wire at a desired position within an animal body for radiation therapy treatment purposes, by driving said source wire from said reference position towards said desired position through said guidance channel and a catheter tube, which catheter tube is connected with one tube end to the afterloading apparatus and implanted with its other tube end in said animal body, characterized in that a lever element (86,54) is pivotally (87) mounted near said guidance channel (102,104), which lever element (86,54) is in a first position (86, fig 4), when said distal end of said source wire (W) is not

present in its reference position and whereas said lever element is in a second position (86, fig 5), when said distal end is present in its reference position.

Thornton '300' teaches of a limit stop mechanism in Fig. 7 that comprises a stack of washers (160) that have tang (162) and a central bore (164, Fig 8). The washers (160) are stacked on the switch lever, (54) which is rotatably (pivot) mounted on the bearing sleeve of the shaft (122). The lever (54) has a lever arm (168), which engages the tang 162a of the lower most washer 160a (first position). An upper stop cap (170) is fixed to the upper end of the shaft (122) and has an overhanging tang, which engages the tang (notch 162) of the uppermost washer (160b) (second position).

As the shaft (122) rotates the tangs (162) engage one another. Tang (162a) engages the lever arm (168) of the switch lever (54) to rotate against a spring force until one of a pair of microswitches (174) is operated.

Each microswitch (174) transmits a signal to the afterloader control system electronics to indicate that the wire (W fig10) has reached the limit of its travel in that direction.

The stop positions for advancing and retracting the radioactive wire (W) can be adjusted for any given or desired wire length by varying the number of washers (160) on the shaft and by adjusting the angular position of the tang on the upper stop cap (170). (Column 10 Lines 4-31)

<u>In Reference To Claim 2</u>

Sensing device according to claim 1, characterized in that when said lever element is in a third position, said distal end is past said reference position.

See Claim 1

In Reference To Claim 3

Sensing device according to claim 1, characterized in that in said first position said lever element extends in said guidance channel.

See Figure 2, 3

In Reference To Claim 4-7

See Claim 1

In Reference To Claim 8

Sensing device according to claim 7, characterized in that said lever element is at least partly made of a light non-transparent material.

Thornton '300' teaches that the lever (54, 56) comprises a mechanism (90) that has a slider block (148) made of a low friction material, such as UHMW plastic. (See Column 9 Lines (40-45)

In Reference To Claim 9

Sensing device according to claims 7, characterized in that said lever element is provided with at least one through bore.

See Claim 1

In Reference To Claim 10

Sensing device according to claims 7, characterized in that an edge of said lever element is provided with at least one notch.

The tang as described in claim 1 meets the limitation of a notch.

In Reference To Claim 11

Sensing device according to claim 6, characterized in that the optical path formed by said light emitting element and said light detector is located some distance away from the guidance channel.

See figure 2, items 22, 56, 114

In Reference To Claims 13, 16, and 22

See Claim 1

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claim(s) 12 and 14-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 6048300 to Thornton '300' in view of US 5957829 to Thornton '829'.

In Reference To Claims 12 and 14-21

Thornton '300' teaches all the limitations of the first claim but fails to disclose the particular emission source type and sourcewire types.

In '829' Thornton teaches of an after loader that is used to position a sourcewire in a predetermined location of a lumen. The sourcewire is formed of a nickel-titanium alloy, and the second segment of the wire can be made of a ferromagnetic ball. A Hall effect sensor is configured to sense a variation in magnetic flux caused by the presence of the second segment of the source wire in a predetermined position in the path of the sourcewire (Column 2 Lines 36-58). The wire drives an optical encoder (31) that is used for positioning of the wire when its' distal tip (24) passes by the prescribed position with in the afterloader (Column 4 Lines 1-5).

Other embodiments and variations of the source and sourcewire would still fit the limitations of the scope of the invention.

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine the teachings of '300' with that of '289' to achieve various combinations of radioactive sources and source wires.

8. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Thornton '300' in view of US 5997462 to Loffler (Loffler).

In Reference To Claim 15

Sensing device according to claim 1, characterized in that the energy emitting source is miniature X-ray source.

Thornton '300' teaches the limitations of the first claim but fails to disclose teachings about an energy emitting source that is an X-ray source.

Loffler, however, teaches of a radiation device that uses X-ray radiography or fluoroscopy that cooperates with a receiver for imagine opaque materials in the body of a patient. The radiation device is used to exactly position the catheter and the source relative to the location of the lesion.

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine the teachings of Thornton '300' with that of Loffler to achieve a sensing device that the energy emitting source is an X-ray source.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The prior art of US 5857956 to Liprie, US 6350227 to Shikhman et al., and Kindlein et al was considered pertinent to the applicant's disclosure.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aaron B. Colquitt whose telephone number is (571) 270-1991. The examiner can normally be reached on Monday-Friday 7:30 - 5:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kenneth Bomberg can be reached on (571) 272-4922. The fax phone

number for the organization where this application or proceeding is assigned is 571-273-8300.

11. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AC

AC 4/30/07

THAO X. LE
PRIMARY PATENT EXAMINER